The first example will detail the load setup used to test the NCDOT girders and the second example will be a distributed load, which would be the common load case for design. If there is a single point load acting at the midspan of the beam and the midspan is the section being analyzed, then the equations for the moment and the shear are

$$M = \frac{PL}{4} \qquad \text{(C-4)}$$

$$V = \frac{P}{2} \qquad \text{(C-5)}$$

where P = point load applied (lbs.)
L = span length of the beam (ft.)

Therefore, the ratio $\frac{M}{V}$ would give a result of $\frac{L}{2}$. This value would be inputted into the moment box and a value of 1 can be inputted into the shear box. If a distributed load is applied to the beam and the beam is being analyzed at midspan, then the equations used are

$$M = \frac{\mathrm{w}L^2}{8} \qquad \text{(C-6)}$$

$$V = \frac{\mathrm{w}L}{2} \qquad \text{(C-7)}$$

where w = distributed load over the beam (lbs./ft.)
L = span length of the beam (ft.)

Inserting these equations into Equation (C-3) results in an equation of $\frac{L}{4}$. This value would be inputted into the moment box with a 1 inputted for shear. Once these loads are inputted, the program is ready to run.

The following sub-menu of the "Load" menu is "Time Dependent Effects". By using this option, *Response 2000* will account for prestress losses at the specified age of